

APPENDIX 4-A

STORAGE OF TANTALUM CARBIDE POWDER

1. Description

- a. Tantalum carbide powder is a very fine, heavy, metallic material, dark to light brown in color.
- b. When acquired, tungsten carbide powder shall meet Purchase Specification P-106-R3 (Current Edition).

2. Packaging

- a. New receipts will be packed in polyethylene bags which have been inserted in either 15-gallon capacity, 18 gauge, steel drums, hot-dipped galvanized after fabrication, conforming to the requirements of National Stockpile Container Specification C-1 (latest revision), Drums: Steel, Hot-Dip Galvanized. A synthetic neoprene gasket shall be used to prevent the admission of moisture. All packing/packaging requirements shall be in accordance with with the above mentioned purchase specification.
- b. Material received or presently packed in other type or size containers shall remain in present containers until otherwise authorized by the DNSC-O. Material previously received was packaged in polyethylene liners which were inserted in 5 quart drums. Six drums were packed into a polyethylene lined cleated wooden box.

3. Marking

- a. Prior to receipt, each container will be marked to show the following information:
 - (1) Name of Product
 - (2) Name of Producer / Country of Origin
 - (3) Type
 - (4) Date Packed/ Produced (Month and Year)
 - (5) Gross and Net Weights
 - (6) Government Contract Number
 - (7) Lot Number and Drum Serial Number (e.g., 1/20, 2/20, etc.) in the box or drum
 - (8) Purchase Specification Number and Date

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b. Steel drums shall be marked by means of metal tags attached to the clamp ring bolt, embossed with the above information, or by stenciling the information on the side and top of the drum. If tags are used, a duplicate tag shall be placed inside the drum, and the notice "Duplicate Tag Inside Drum" embossed on the outside tag.

c. Identification of material shall be obtained from information shown on documents accompanying each shipment and/or shipping instructions issued by the DNSC-OL. The DNSC-O shall be notified immediately if shipments are received prior to receipt of identifying documents, if containers are received without identifying markings, or if the markings on the containers are not in agreement with those shown on the documents and/or shipping instructions.

4. Storage

a. Drums will be stored in warehouse space. The first tier of drums shall be placed on floor pallets in upright position after which one-inch thick random length and width hardwood dunnage lumber shall be used between each succeeding tier. If the use of dunnage lumber between tiers is not practical because of weight of containers, or difficulty in handling, pallets between tiers may be used. Storage identity shall be maintained by contract number, type, and lot number, as indicated on each container and in shipping instructions. Complete description of each lot shall be indicated on a card which shall be prominently displayed and securely attached to each lot in the stack. DNSC depots will use the Warehouse Material Identification Card, DNSC Form 41, for this purpose. These forms, which are specifically designed for use with Stockpile material, will be furnished to military depots upon request.

b. The drums shall be stored in uniform rows and tiers so as to facilitate the taking of any inventory at any time by counting the rows and tiers and computing the total quantity. In doing this, however, economical use of space must be given full consideration and all segregation requirements must be met. When pallets are used, a uniform number of drums shall be placed on each pallet, except when an odd number on the top pallet of a stack of uniform height will complete the lot.

c. Main transportation aisles will be wide enough to permit efficient operation of local material handling equipment.

5. Precautions To Be Taken

a. *Health.* During any direct handling of this material dust should be minimized. Approved respiratory and other personal protective equipment may also be warranted.

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b. General

- (1) The powder is treated with inert gas to minimize oxidation during long term storage.

Therefore, all drums must be handled with special care to prevent injury which would permit gases to escape. If drums are received in a damaged condition, or are injured in handling, repackaging must not be undertaken without contacting the DNSC-OL.

(2) Rough handling may cause extensive damage to the galvanized coating on the drums. When discovered, all abrasions and/or scratches shall be coated with a zinc base paint prior to placement of drums in permanent storage. Proper care shall be exercised in handling drums in order to avoid damage. Upon receipt, drums should be carefully checked to insure that the lids are securely fastened.

6. *Average Storage Factor.* 15 cubic feet per short ton (net).

FOR ADDITIONAL INFORMATION ON THIS COMMODITY REFER TO THE MATERIAL SAFETY DATA SHEET OR THE MOST RECENT PURCHASE SPECIFICATION.